

Notice of Allowability	Application No.	Applicant(s)	
	10/071,516	WONG ET AL.	
	Examiner	Art Unit	
	Vinod D. Patel	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/8/04.
2. ☒ The allowed claim(s) is/are 15,19,20 and 29.
3. ☒ The drawings filed on 08 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eunhee Park on 12/22/04.

The application has been amended as follows:

Claims; Claims 1-31 are replaced with following claims.

1-14. (Canceled)

15. (Currently Amended) A hair curling roller comprising:

a hollow cylindrical shell, characterized in that a body of the cylindrical shell is integrally entirely composed of a blended material of thermo-resistant material and ion-powders,

wherein said ion-powders include a blend mixture of powders including anhydrous silicon (SiO₂), aluminum oxide (Al₂O₃), iron oxide (Fe₂O₃), titanium oxide (TiO₂), calcium oxide (CaO), magnesium oxide (MgO), potassium oxide (K₂O), sodium oxide (Na₂O) and manganese oxide (MnO), and

wherein the size of the particles of said ion-powders is less than 10μm in diameter; and a conductive heating element within the cylindrical shell.

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16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Currently amended) A hair curling roller comprising:

a hollow cylindrical shell, characterized in that a body of the cylindrical shell entirely composed of a blended material of thermo-resistant material and ion-powders,

wherein said ion-powders include a blend mixture of powders including anhydrous silicon (SiO_2), aluminum oxide (Al_2O_3), iron oxide (Fe_2O_3), titanium oxide (TiO_2), calcium oxide (CaO), magnesium oxide (MgO), potassium oxide (K_2O), sodium oxide (Na_2O) and manganese oxide (MnO), and

wherein the size of the particles of said ion-powders is less than $10\mu\text{m}$ in diameter; and
~~according to claim 15, further comprising~~ an inductive heating element within the cylindrical shell.

20. (Currently amended) A hair curling roller, comprising:

a hollow cylindrical shell, characterized in that the cylindrical shell is entirely composed of a blended material of thermo-resistant material and ion-powders;

wherein said ion-powders include at least a blend mixture of powders including anhydrous silicon (SiO_2), aluminum oxide (Al_2O_3), iron oxide (Fe_2O_3), titanium oxide (TiO_2),

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calcium oxide (CaO), magnesium oxide (MgO), potassium oxide (K₂O), sodium oxide (Na₂O)
and manganese oxide (MnO), and

wherein the size of the particles of said ion-powders is less than 10μm in diameter; and
an inductive heating element within the cylindrical shell,

a plurality of projections disposed on an outer surface of the cylindrical shell,

wherein the plurality of projections are integrally made of a blended material of thermo-
resistant material and ion-powders.

21-27 (Canceled)

28. (Canceled)

29. (Currently amended) A hair curling roller ~~having~~ comprising:

a hollow cylindrical shell, characterized in that a body of the cylindrical shell is ~~formed~~
~~by injection molding~~ entirely composed of a blended material of thermo-resistant material and
ion-powders,

wherein said ion-powders include a blend mixture of powders including anhydrous
silicon (SiO₂), aluminum oxide (Al₂O₃), iron oxide (Fe₂O₃), titanium oxide (TiO₂), calcium oxide
(CaO), magnesium oxide (MgO), potassium oxide (K₂O), sodium oxide (Na₂O) and manganese
oxide (MnO),

wherein the size of the particles of said ion-powders is less than 10μm in diameter; and
an inductive heating element within the cylindrical shell

wherein the body of said cylindrical shell includes a plurality of outer projections.

30. (Canceled)

31. (Canceled)

Allowable Subject Matter

2. Claims 15, 19, 20, and 29 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach to one of ordinary skill in the art, in combination with the other limitations of the independent claims, a hair curling roller comprising a hollow cylindrical shell characterized in that the cylindrical shell entirely composed of a blended material of thermo-resistant material and ion-powders and wherein ion-powders include a blend mixture of powders and the size of the particles of the ion-powders is less than 10 μ m in diameter.

Although the prior art is replete with teachings of hair curling rollers, the prior art does not teach to one of ordinary skill in the art, and in combination with the other limitations of the independent claims, a hair curling roller comprising a hollow cylindrical shell entirely composed of a blended material of thermo-resistant material and ion-powders 10 μ m in diameter to avoid peeling off or worn off due to high heating as stated in the page 2, line 1-2 of the specification. The instant application is deemed to be directed to a non-obvious improvement over the inventions patented in Pat. No. 6,205,674. The improvement over 6,205,674 comprises a cylindrical shell consist of a blended material of thermo-resistant material and ion-powders of 10 μ m in diameter. With respect to 6,205,674, in the examiner's opinion, it would not have been

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obvious to a person of ordinary skill in the art to eliminate the coating, replacing it with a the cylindrical shell consist of a blended material of thermo-resistant material and ion-powders 10µm in diameter. Further, one of ordinary skill would not find motivation in the prior art to modify the device patented in Pat. No. 6,205,674 to include a cylindrical shell consist of a blended material of thermo-resistant material and ion-powders 10µm in diameter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takimae (US4740669) relates to infrared radiating curling iron, Hasegawa (US5077461) relates to far-infra-red heater, Deguy (US6370327) relates to emitter of infrared radiation, Slingo (US6378225) relates to far-infrared radiation hair dryer, Kaizuka (US6357075) relates to hair brush), Lee (US6640049) relates to ion emitting hot air blower, Ryu (US6798982) relates to hair dryer having a pad for generating far-infrared rays.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod D. Patel whose telephone number is 571-272-4785. The examiner can normally be reached on 7.30 A.M. TO 4.00 P.M..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
December 23, 2004


Vinod Patel
Patent Examiner


ROBIN O. EVANS
PRIMARY EXAMINER
12/27/04